## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/618, 143A
Source:	IFW16
Date Processed by STIC:	10/12/2006
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## ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 10/12/2006
PATENT APPLICATION: US/10/618,143A TIME: 15:56:29

Input Set : A:\078-us1.ST25.txt

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      5 <120> TITLE OF INVENTION: ISOCITRATE DEHYDROGENASE AND USES THEREOF
      7 <130> FILE REFERENCE: 67723-A; 078-US1
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/618,143A
C--> 10 <141> CURRENT FILING DATE: 2003-07-11
     12 <150> PRIOR APPLICATION NUMBER: 60/395364
     13 <151> PRIOR FILING DATE: 2002-07-11
     15 <160> NUMBER OF SEQ ID NOS: 6
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    39
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    42 gga gat gaa atg aca cga atc att tgg gaa ttg att aaa gag aaa ctc
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    43 Gly Asp Glu Met Thr Arg Ile Ile Trp Glu Leu Ile Lys Glu Lys Leu
    46 att ttt ccc tac gtg gaa ttg gat cta cat agc tat gat tta ggc ata
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    47 Ile Phe Pro Tyr Val Glu Leu Asp Leu His Ser Tyr Asp Leu Gly Ile
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    59 Asp Glu Lys Arg Val Glu Glu Phe Lys Leu Lys Gln Met Trp Lys Ser
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Input Set : A:\078-us1.ST25.txt

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83 gg	t ggt	ggt	gtt	gcc	atg	ggg	atg	tat	aat	caa	gat	aag	tca	att	gaa	816
84 Gl	y Gly	Gly	Val	Ala	Met	Gly	Met	Tyr	Asn	Gln	Asp	Lys	Ser	Ile	Glu	
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103 gf 104 Vi 105 25 107 ac 108 Ac 109 111 to 112 Sc 113 115 gf 116 Vi 117 119 ta 120 Tf 121 gc 123 gc 124 Ac 125 33 127 ga 128 Gc 128 Gc	tg gccal gccal Alas ac cas gas al Gluac cas gas al Gluac cas gcc tgg la Try 335	gat a	Ala ggt Gly atg Met 290 gag Glu gga Gly aga Arg	Met gac Asp 275 atg Met gct Ala cag Gln ggg Gly ttt Phe	Lys 260 gtg Val acc Thr gcc Ala gag Glu tta 340 gca Ala	tca Ser cag Gln agc Ser cac His acg Thr 325 gcc Ala	gag Glu tcg Ser Val ggg Gly 310 tcc Ser cac His	gac Asp Cto Leu 295 act Thr acc Thr	Gly Ctct Ser 280 gtt Val Gta Val Asn Gaa Glu	Phe 265 gtg yal	ato Ile	tgg Trp caa Gln agat Asp cac His 315 agat Ala cgat Asp	a Ala a ggg a Gly 300 a tao a Tyr a tco a Ser a Asr	tati Tyr 285 aag Lys cgc Arg atti Asn	Lys 270 ggc Gly aca Thr ttt Phe aaa Lys 350 aca Thr	1104 1152 1200 1248
103 gf 104 Vi 105 25 107 ac 108 Ac 109 111 to 112 Sc 113 115 gf 116 Vi 117 119 ta 120 Ti 121 gc 124 Ac 125 33 127 ga 128 Gi 129	tg gccal Alas Alas Alas Alas Alas Alas Alas Al	gat a	Ala ggt Gly atg Met 290 gag Glu gga Gly aga Arg	Met gac Asp 275 atg Met gct Ala cag Gln ggg ttt Phe 355	Lys 260 gtg Val acc Thr gcc Ala gag Glu tta 340 gca Ala	tca Ser cag Gln agc Ser cac His acg Thr 325 gcc Ala aat Asn	gag Glu tcg Ser Val ggg Gly 310 tcc Ser cac His	g Gly gac Asp ctg Leu 295 act Thr acc Thr Arg	Gly Ctct Ser 280 gtt Val Gta Val Asn Gaa Glu 360	Phe 265 gtg yal	ato Ile	c tgg c Trp c caa gat a gat c cac g His gc c Ala c gat c Asp c Ser	a ggg	tati Tyr 285 aag Lys cgc Arg atti Asn	Lys 270 ggc Gly aca Thr atg Met ttt Phe aaa Lys 350 aca Thr	1104 1152 1200 1248 1296
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Input Set : A:\078-us1.ST25.txt

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177 179 180 183 184 187 188 191 192	<pre>Met Ser Ly  Met Ser Ly  1 Glu Met Th  Pro Tyr Va  35  Arg Asp Al  50  Lys Lys Hi</pre>	ENCE: 2 ENCE: 25 TATG I 20 1 Glu I	ile Ser ile Ile ile Ile Leu Asp	Gly G Trp G Leu H Gln V	Glu Lo 2: His So 40 Val Tl	10 eu Ile 5 er Tyr hr Lys	Lys Asp Asp	Glu Leu Ala 60	Lys Gly 45 Ala	Leu 30 Ile Glu	15 Ile Glu Ala	Phe Asn Ile Glu	
177 179 180 183 184 187 188 191 192 195	<pre>Add &gt; SEQU Met Ser Ly 1 Glu Met Th Pro Tyr Va</pre>	ENCE: 2 S Lys I F Arg I 20 l Glu I A Thr A	Ile Ser Ile Ile Leu Asp Asn Asp Val Gly 70	Gly G Trp G Leu H Gln V 55 Val I	Glu Lo 2! His So 40 Val Tl Lys C	10 eu Ile 5 er Tyr hr Lys ys Ala	Lys Asp Asp Thr 75	Glu Leu Ala 60 Ile	Lys Gly 45 Ala Thr	Leu 30 Ile Glu Pro	15 Ile Glu Ala Asp	Phe Asn Ile Glu 80	
177 179 180 183 184 187 188 191 192 195	<pre>Met Ser Ly  Met Ser Ly  1 Glu Met Th  Pro Tyr Va  35  Arg Asp Al  50  Lys Lys Hi</pre>	ENCE: 2 s Lys I r Arg I 20 l Glu I a Thr A	Ile Ser Ile Ile Leu Asp Asn Asp Val Gly 70	Gly G Trp G Leu H Gln V 55 Val I	Glu Lo 2! His So 40 Val Tl Lys C	10 eu Ile 5 er Tyr hr Lys ys Ala	Lys Asp Asp Thr 75	Glu Leu Ala 60 Ile	Lys Gly 45 Ala Thr	Leu 30 Ile Glu Pro	15 Ile Glu Ala Asp	Phe Asn Ile Glu 80	
177 179 180 183 184 187 188 191 192 195	<pre>Add &gt; SEQU Met Ser Ly 1 Glu Met Th Pro Tyr Va</pre>	ENCE: 2  S Lys I  T Arg I  20  I Glu I  Thr A  S Asn V	Ile Ser Ile Ile Leu Asp Asn Asp Val Gly 70	Gly G Trp G Leu H Gln V 55 Val I	Glu Lo 2! His So 40 Val Tl Lys C	10 eu Ile 5 er Tyr hr Lys ys Ala	Lys Asp Asp Thr 75	Glu Leu Ala 60 Ile	Lys Gly 45 Ala Thr	Leu 30 Ile Glu Pro	15 Ile Glu Ala Asp	Phe Asn Ile Glu 80	
177 179 180 183 184 187 188 191 192 195 196 199 200	<pre>Add &gt; SEQU Met Ser Ly 1 Glu Met Th Pro Tyr Va</pre>	ENCE: 2  S Lys I  T Arg I  20  I Glu I  Thr A  S Asn V	Ile Ser Ile Ile Leu Asp Asn Asp Val Gly 70 Glu Phe	Gly G Trp G Leu H Gln V 55 Val I Lys I	Glu Lo 2: His So 40 Val Ti Lys C	10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90	Lys Asp Asp Thr 75 Met	Glu Leu Ala 60 Ile Trp	Lys Gly 45 Ala Thr	Leu 30 Ile Glu Pro Ser	15 Ile Glu Ala Asp Pro 95	Phe Asn Ile Glu 80 Asn	
177 179 180 183 184 187 188 191 192 195 196 199 200	<pre>Add &gt; SEQU Met Ser Ly 1 Glu Met Th Pro Tyr Va 35 Arg Asp Al 50 Lys Lys Hi 65 Lys Arg Va Gly Thr Il</pre>	ENCE: 2  S Lys I  T Arg I  20  I Glu I  Thr A  S Asn V	Ile Ser Ile Ile Leu Asp Asn Asp Val Gly 70 Glu Phe	Gly G Trp G Leu H Gln V 55 Val I Lys I	Glu Lo 21 His So 40 Val Ti Lys Co Leu Lo	10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90	Lys Asp Asp Thr 75 Met	Glu Leu Ala 60 Ile Trp	Lys Gly 45 Ala Thr	Leu 30 Ile Glu Pro Ser	15 Ile Glu Ala Asp Pro 95	Phe Asn Ile Glu 80 Asn	
177 179 180 183 184 187 188 191 192 195 196 199 200 203	<pre>&lt;400&gt; SEQU Met Ser Ly 1 Glu Met Th Pro Tyr Va 35 Arg Asp Al 50 Lys Lys Hi 65 Lys Arg Va Gly Thr Il</pre>	ENCE: 2  ENCE: 2  Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  E Arg A  100	Ile Ser Ile Ile Leu Asp Asn Asp 70 Ilu Phe Ilu Phe Ilu Ile	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G	Glu Lo 29 His So 40 Val Ti Lys Cy Leu Lo Gly G	10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr	Lys Asp Asp Thr 75 Met Val	Glu Leu Ala 60 Ile Trp Phe	Lys Gly 45 Ala Thr Lys Arg	Leu 30 Ile Glu Pro Ser Glu 110	15 Ile Glu Ala Asp Pro 95 Ala	Phe Asn Ile Glu 80 Asn Ile	
177 179 180 183 184 187 188 191 192 195 196 199 200 203 204	<pre>&lt;400&gt; SEQU Met Ser Ly 1 Glu Met Th Pro Tyr Va 35 Arg Asp Al 50 Lys Lys Hi 65 Lys Arg Va Gly Thr Il</pre>	ENCE: 2  S Lys I  T Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  A Arg A  1 Arg A	Ile Ser Ile Ile Leu Asp Asn Asp 70 Ilu Phe Ilu Phe Ilu Ile	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I	Glu Lo 29 His So 40 Val Ti Lys Cy Leu Lo Gly G	10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr	Lys Asp Asp Thr 75 Met Val	Glu Leu Ala 60 Ile Trp Phe	Lys Gly 45 Ala Thr Lys Arg	Leu 30 Ile Glu Pro Ser Glu 110	15 Ile Glu Ala Asp Pro 95 Ala	Phe Asn Ile Glu 80 Asn Ile	
177 179 180 183 184 187 188 191 192 195 196 199 200 203 204 207 208	<pre>Add &gt; SEQUE Met Ser Ly 1 Glu Met Th  Pro Tyr Va 35 Arg Asp Al 50 Lys Lys Hi 65 Lys Arg Va  Gly Thr Il Ile Cys Ly 11</pre>	ENCE: 2  S Lys I  T Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  A Arg A  1 OO S Asn I	Ile Ser Ile Ile Leu Asp Asn Asp 70 Glu Phe B5 Asn Ile Ile Pro	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I	Glu Le 29 His Se 40 Val Tl Lys Co Leu Le 19 Gly Gl Leu Val 120	10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr 05 al Ser	Lys Asp Asp Thr 75 Met Val Gly	Glu Leu Ala 60 Ile Trp Phe Trp	Lys Gly 45 Ala Thr Lys Arg Val 125	Leu 30 Ile Glu Pro Ser Glu 110 Lys	15 Ile Glu Ala Asp Pro 95 Ala Pro	Phe Asn Ile Glu 80 Asn Ile Ile	
177 179 180 183 184 187 188 191 192 195 196 199 200 203 204 207 208 211	<pre>Add &gt; SEQUE Met Ser Ly 1 Glu Met The Pro Tyr Val 35 Arg Asp Al 50 Lys Lys Hi 65 Lys Arg Val Gly Thr Il Ile Cys Ly 11 Ile Ile Gl</pre>	ENCE: 2  S Lys I  T Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  A Arg A  1 OO S Asn I	Ile Ser Ile Ile Leu Asp Asn Asp 70 Glu Phe B5 Asn Ile Ile Pro	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I	Glu Le 29 His Se 40 Val Tl Lys Co Leu Le 19 Gly Gl Leu Val 120	10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr 05 al Ser	Lys Asp Asp Thr 75 Met Val Gly	Glu Leu Ala 60 Ile Trp Phe Trp	Lys Gly 45 Ala Thr Lys Arg Val 125	Leu 30 Ile Glu Pro Ser Glu 110 Lys	15 Ile Glu Ala Asp Pro 95 Ala Pro	Phe Asn Ile Glu 80 Asn Ile Ile	
177 179 180 183 184 187 188 191 192 195 196 199 200 203 204 207 208 211 212	<pre>A400&gt; SEQU Met Ser Ly 1 Glu Met Th Pro Tyr Va 35 Arg Asp Al 50 Lys Lys Hi 65 Lys Arg Va Gly Thr Il Ile Cys Ly 11 Ile Ile Gl 130</pre>	ENCE: 2  ENCE: 2  ENCE: 2  F Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  A Arg A  100  S Asn I  T Arg E	Ile Ser Ile Ile Leu Asp Asn Asp Val Gly 70 Glu Phe B5 Asn Ile Ile Pro His Ala	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I Tyr G 135	Glu Leu Leu Volleu A	eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr 05 al Ser sp Gln	Lys Asp Asp Thr 75 Met Val Gly Tyr	Glu Leu Ala 60 Ile Trp Phe Trp Arg 140	Lys Gly 45 Ala Thr Lys Arg Val 125 Ala	Leu 30 Ile Glu Pro Ser Glu 110 Lys Thr	15 Ile Glu Ala Asp Pro 95 Ala Pro Asp	Phe Asn Ile Glu 80 Asn Ile Ile	
177 179 180 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212 215	<pre>Adous Sequence Met Ser Ly I Glu Met The Pro Tyr Va</pre>	ENCE: 2  ENCE: 2  ENCE: 2  F Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  A Arg A  100  S Asn I  T Arg E	Ile Ser Ile Ile Ile Asp Asn Asp Val Gly 70 Flu Phe S5 Asn Ile Ile Pro His Ala	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I Tyr G 135	Glu Leu Leu Volleu A	eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr 05 al Ser sp Gln	Lys Asp Asp Thr 75 Met Val Gly Tyr Thr	Glu Leu Ala 60 Ile Trp Phe Trp Arg 140	Lys Gly 45 Ala Thr Lys Arg Val 125 Ala	Leu 30 Ile Glu Pro Ser Glu 110 Lys Thr	15 Ile Glu Ala Asp Pro 95 Ala Pro Asp	Phe Asn Ile Glu 80 Asn Ile Ile Phe Asp	
177 179 180 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212 215 216	<pre>Adous SEQUE Met Ser Ly 1 Glu Met The Pro Tyr Va 35 Arg Asp Ala 50 Lys Lys Hi 65 Lys Arg Va Gly Thr Il Ile Cys Lys 11 Ile Ile Gl 130 Val Val Pro 145</pre>	ENCE: 2  S Lys I  r Arg I  20  l Glu I  a Thr A  s Asn V  l Glu G  a Arg A  100  s Asn I  y Arg H	Ile Ser Ile Ile Ile Asp Asn Asp Val Gly 70 Flu Phe S5 Asn Ile Ile Pro His Ala Pro Gly 150	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I Tyr G 135 Lys V	Glu Le 29 His Se 40 Val Ti Lys Co Leu Le 19 Leu Val 120 Gly As	10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr 05 al Ser sp Gln lu Ile	Lys Asp Asp Thr 75 Met Val Gly Tyr Thr 155	Glu Leu Ala 60 Ile Trp Phe Trp Arg 140 Tyr	Lys Gly 45 Ala Thr Lys Arg Val 125 Ala Thr	Leu 30 Ile Glu Pro Ser Glu 110 Lys Thr	15 Ile Glu Ala Asp Pro 95 Ala Pro Asp Ser	Phe Asn Ile Glu 80 Asn Ile Ile Phe Asp 160	
177 179 180 183 184 187 188 191 192 195 196 203 204 207 208 211 212 215 216 219	<pre>Adous Sequence Met Ser Ly I Glu Met The Pro Tyr Va</pre>	ENCE: 2  ENCE: 2  ENCE: 2  Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  E Arg A  100  S Asn I  G Arg E  O Gly F  I Lys V	Ile Ser Ile Ile Leu Asp Asn Asp 70 Ilu Phe Ile Ile Pro Ile Pro Ile Thr	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I Tyr G 135 Lys V	Glu Le 29 His Se 40 Val Ti Lys Co Leu Le 19 Leu Val 120 Gly As	eu 10 eu Ile 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr 05 al Ser sp Gln lu Ile al His	Lys Asp Asp Thr 75 Met Val Gly Tyr Thr 155	Glu Leu Ala 60 Ile Trp Phe Trp Arg 140 Tyr	Lys Gly 45 Ala Thr Lys Arg Val 125 Ala Thr	Leu 30 Ile Glu Pro Ser Glu 110 Lys Thr	15 Ile Glu Ala Asp Pro 95 Ala Pro Asp Ser Gly	Phe Asn Ile Glu 80 Asn Ile Ile Phe Asp 160	
177 179 180 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212 215 216 219 220	<pre>Adous SEQUE Met Ser Ly 1 Glu Met The Pro Tyr Va 35 Arg Asp Ala 50 Lys Lys Hi 65 Lys Arg Va Gly Thr Il Ile Cys Lys 11 Ile Ile Gl 130 Val Val Pro 145</pre>	ENCE: 2  ENCE: 2  Arg I  20  I Glu I  A Thr A  S Asn V  I Glu G  Arg A  100  S Asn I  O Gly F  O Gly F  O Gly F	Ile Ser Ile Ile Leu Asp Asn Asp 70 Ilu Phe Ile Ile Pro Ile Pro Ile Thr Ile Ile Ile	Gly G Trp G Leu H Gln V 55 Val I Lys I Leu G Arg I Tyr G 135 Lys V Tyr I	Glu Le 29 His School 140 Val Ti Lys Co Leu Le 140 Leu Val 120 Gly A	eu 10 eu Tle 5 er Tyr hr Lys ys Ala ys Gln 90 ly Thr 05 al Ser sp Gln lu Ile al His 170	Lys Asp Asp Thr 75 Met Val Gly Tyr Thr 155 Asn	Glu Leu Ala 60 Ile Trp Phe Trp Arg 140 Tyr	Lys Gly 45 Ala Thr Lys Arg Val 125 Ala Thr	Leu 30 Ile Glu Pro Ser Glu 110 Lys Thr Pro Glu	15 Ile Glu Ala Asp Pro 95 Ala Pro Asp Ser Gly 175	Phe Asn Ile Glu 80 Asn Ile Ile Phe Asp 160 Gly	

Input Set : A:\078-us1.ST25.txt

224			180					185					190			
227	Ala His	Ser	Ser	Phe	Gln	Met		Leu	Ser	Lys	Gly	Trp	Pro	Leu	Tyr	
228		195					200					205				
231	Leu Ser	Thr	Lys	Asn	${ t Thr}$	Ile	Leu	Lys	Lys	Tyr	Asp	Gly	Arg	Phe	Lys	
232	210					215					220					
235	Asp Ile	Phe	Gln	Glu	Ile	Tvr	Asp	Lvs	Gln	Tvr	Lvs	Ser	Gln	Phe	Glu	
	225				230	-1-	1101	_, _	<b>U</b>	235			<b></b>		240	
		Tvea	т10	Trn		C1.,	uic	7 ~~	T 011			7 an	Mot	7727		
	Ala Gln	пур	TIE		IÀT	GIU	nis	Arg		TTE	Asp	Asp	Mec		АТА	
240				245					250			_		255	_	
243	Gln Ala	Met	Lys	$\operatorname{Ser}$	Glu	Gly	Gly	Phe	Ile	Trp	Ala	Cys	Lys	Asn	$\mathtt{Tyr}$	
244			260					265					270			
247	Asp Gly	Asp	Val	Gln	Ser	Asp	Ser	Val	Ala	Gln	Gly	Tyr	Gly	Ser	Leu	
248		275					280					285				
	Gly Met	Met	Thr	Ser	Val	Leu	Val	Cvs	Pro	Asp	Glv	Lvs	Thr	Val	Glu	
252	290					295		-7.5			300	-1-				
		777	71-	піс	C1		17-1	Thr	7 ~~~	uic		7~~	Mot	Фтт	Cln	
	Ala Glu	Ala	Ата	HIS	_	TIIL	vai	1111	Arg		ıyı	Arg	Mec	IÀT		
	305			_	310	_				315					320	
259	Lys Gly	Gln	Glu	Thr	Ser	Thr	Asn	Pro	Ile	Ala	Ser	Ile	Phe	Ala	Trp	
260				325					330					335		
263	Thr Arg	Gly	Leu	Ala	His	Arg	Ala	Lys	Leu	Asp	Asn	Asn	Lys	Glu	Leu	
264			340					345					350			
267	Ala Phe	Phe	Ala	Asn	Ala	Leu	Glu	Glu	Val	Ser	Ile	Glu	Thr	Ile	Glu	
268		355					360					365		_		
	7.1 - 1.01.		Mot	ሞኮሎ	Tara	7 an		777	715	Cara	т10		Clar	Len	Pro	
	Ala Gly	PILE	Met	1111	пуъ	_	цец	Ата	AIA	Cys		пуъ	GIY	пец	FIO	
272	370		_	_	_	375	_	_		_,	380	_,		_	_	
275	Asn Val	Gin	Arg	Ser	_	Tyr	Leu	Asn	Thr		Glu	Pne	Met	Asp		
	385		•		390					395					400	
279	Leu Gly	Glu	Asn	Leu	Lys	Ile	Lys	Leu	Ala	Gln	Ala	Lys	Leu			
280				405					410		•				•	
283	<210> SE	EQ II	NO:	: 3									•		-	
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				110,111	Jan	J1 C11.	•									
	<220> FE			ana												
	<221> NA															
	<222> LC				) (:	1445)	)									
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	cctgctcg															113
297			_		_										l Arg	
298							1			2 -	5				5	
	taa ata	+~~	200	~~~	+ < <	~~~	-	~~~	~~~	~~~	+~~	ac~	000	~~~	acc	161
	tcg ctc															TOT
	Ser Leu	Cys	Arg	Ala		GIY	ser	Arg	Pro		Trp	Ala	Pro	АТА		
302					15	•				20					25	
304	ctg aca	gcc	CCC	acc	tcg	caa	gag	cag	ccg	cgg	cgc	cac	tat	gcc	gac	209
305	Leu Thr	Ala	Pro	Thr	Ser	Gln	Glu	Gln	Pro	Arg	Arg	His	Tyr	Ala	Asp	
306				30					35	_	_		-	40	_	
	aaa agg	atc	aad		aca	aad	ddd	ata		gag	atσ	gat	aat		gag	257
	Lys Arg															
202	nys Arg	116	пλз	val	лта	цys	FIO	Val	Val	GIU	Mec	Joh	G T Y	Top	OI u	

Input Set : A:\078-us1.ST25.txt

3:	10				45					50					55			
3:	12	atg	acc	cgt	att	atc	tgg	cag	ttc	atc	aag	gag	aag	ctc	atc	ctg	CCC	305
3:	13	Met	Thr	Arg	Ile	Ile	Trp	Gln	Phe	Ile	Lys	Glu	Lys	Leu	Ile	Leu	Pro	
3:	<b>L4</b>			60					65					70				
3:	16	cac	gtg	gac	atc	cag	cta	aag	tat	ttt	gac	ctc	ggg	ctc	cca	aac	cgt	353
3:	۱7	His	Val	Asp	Ile	Gln	Leu	Lys	Tyr	Phe	Asp	Leu	Gly	Leu	Pro	Asn	Arg	
	18		75					80					85					
		_	_		_	_	_	_	acc		_		_	_	_			401
32	23	Asp	Gln	Thr	Asp	Asp	Gln	Val	Thr	Ile	Asp	Ser	Ala	Leu	Ala	Thr		
		90					95					100					105	
									tgt									449
		Lys	Tyr	Ser	Val		Val	Lys	Cys	Ala		Ile	Thr	Pro	Asp		Ala	
	28					110					115					120		
									aag									497
		Arg	Val	Glu		Phe	Lys	Leu	Lys	_	Met	Trp	Lys	Ser		Asn	Gly	
33					125					130					135			
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		Thr	11e	_	Asn	ile	Leu	GIY	Gly	Thr	Val	Pne	Arg		Pro	тте	11e	
33				140					145					150				<b>50</b> 2
		_					_		gtc					-				593
		Cys	_	Asn	шe	Pro	Arg		Val	Pro	GIY	Trp		гля	Pro	тте	Thr	
	10		155			~~~	-a-	160	~~~	~~~		~	165		~~~		~+~	641
									gac									641
		170	GIY	Arg	птр	нта	175	Gry	Asp	GIII	ıyı	180	ніа	1111	Asp	FIIE	185	
			a a a	cca	aaa	aaa		tta	aaa	ata	ata		200	002	222	ast		689
									Lys									005
	18	AIG	пър	n. 9	AIG	190	1114	1110	цур	1100	195	1110	1111	110	טעם	200	017	
		agt.	aat.	ata	aaq		t.aa	даа	gtg	tac		ttc	CCC	gca	aac		ata	737
									Val									
	52	-,	1		205					210					215	1		
		qqc	atq	qqc	atq	tac	aac	acc	gac	qaq	tcc	atc	tca	qqt	ttt	qcq	cac	785
			_		_				Asp									
35		•		220		•			225					230				
35	58	agc	tgc	ttc	cag	tat	gcc	atc	cag	aag	aaa	tgg	ccg	ctg	tac	atg	agc	833
		_	_		_		-		Gln	_			_			_	_	
36	50		235					240					245					
3€	52	acc	aag	aac	acc	ata	ctg	aaa	gcc	tac	gat	ggg	cgt	ttc	aag	gac	atc	881
36	53	Thr	Lys	Asn	Thr	Ile	Leu	Lys	Ala	Tyr	Asp	Gly	Arg	Phe	Lys	Asp	Ile	
36	54	250					255					260	•				265	
36	56	ttc	cag	gag	atc	ttt	gac	aag	cac	tat	aag	acc	gac	ttc	gac	aag	aat	929
36	57	Phe	Gln	Glu	Ile	Phe	Asp	Lys	His	Tyr	Lys	Thr	Asp	Phe	Asp	Lys	Asn	
36	8					270					275					280		
									ctc									977
		Lys	Ile	Trp	Tyr	Glu	His	Arg	Leu		Asp	Asp	Met	Val	Ala	Gln	Val	
37					285					290					295			
									gtg									1025
		Leu	Lys		Ser	Gly	Gly	Phe	Val	${\tt Trp}$	Ala	Cys	Lys		Tyr	Asp	Gly	
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VERIFICATION SUMMARY

DATE: 10/12/2006 TIME: 15:56:30

PATENT APPLICATION: US/10/618,143A

Input Set : A:\078-us1.ST25.txt

Output Set: N:\CRF4\10122006\J618143A.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date